Title (en)

A METHOD TO FIND ABNORMAL ACTIVATIONS IN INTRA-CARDIAC ELECTROCARDIOGRAMS

Title (de)

VERFAHREN ZUM AUFFINDEN VON ANORMALEN AKTIVIERUNGEN IN INTRAKARDIALEN ELEKTROKARDIOGRAMMEN

Title (fr)

PROCÉDÉ PERMETTANT DE TROUVER DES ACTIVATIONS ANORMALES DANS DES ÉLECTROCARDIOGRAMMES INTRACARDIAQUES

Publication

EP 3821808 A1 20210519 (EN)

Application

EP 20207557 A 20201113

Priority

US 201916685496 A 20191115

Abstract (en)

Methods, apparatus, and systems for medical procedures are disclosed herein and include detecting points of an intra-cardiac area that exhibits abnormal activations, such as local abnormal ventricular activations (LAVAs). Points that exhibit such abnormal activations may be referred to as seed points that are identified during a first step of the process disclosed herein. The seed points may be identified using one or more inputs such as unipolar and bipolar mapping channels, body surface ECGs, past activations, neighboring points and the like during the first step which prioritizes high specificity over sensitivity. During a second step which prioritizes high sensitivity, electrical activations of neighboring points near the seed points are analyzed to determine if the activations are similar (e.g., have a similar time) as the abnormal activations corresponding to the corresponding seed points.

IPC 8 full level

A61B 5/349 (2021.01)

CPC (source: CN EP IL US)

A61B 5/053 (2013.01 - CN); **A61B 5/283** (2021.01 - IL US); **A61B 5/349** (2021.01 - EP IL); **A61B 5/366** (2021.01 - IL US); **A61B 5/7203** (2013.01 - EP); **A61B 5/7264** (2013.01 - EP IL); **G16H 20/40** (2018.01 - EP); **G16H 30/20** (2018.01 - EP); **G16H 40/63** (2018.01 - EP); **G16H 40/67** (2018.01 - EP); **G16H 50/70** (2018.01 - EP); A61B 5/7264 (2013.01 - US)

Citation (search report)

- [X] US 2012184863 A1 20120719 - HARLEV DORON [US], et al
- [X] WO 2017192294 A1 20171109 - CARDIOINSIGHT TECHNOLOGIES INC [US]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3821808 A1 20210519; **EP 3821808 B1 20240110**; **EP 3821808 C0 20240110**; CN 112890824 A 20210604; EP 4327746 A2 20240228; EP 4327746 A3 20240529; IL 278499 A 20210531; IL 278499 B1 20230801; IL 278499 B2 20231201; JP 2021079099 A 20210527; US 11278233 B2 20220322; US 2021145301 A1 20210520; US 2022202345 A1 20220630

DOCDB simple family (application)

EP 20207557 A 20201113; CN 202011269174 A 20201113; EP 24150903 A 20201113; IL 27849920 A 20201104; JP 2020189224 A 20201113; US 201916685496 A 20191115; US 202217698578 A 20220318